



Ticks can spread a number of diseases to pets and humans, including Lyme disease and Rocky Mountain spotted fever. Control measures include prompt detection and removal, and the proper use of preventive products.

## Life Cycle

- A tick life cycle has 4 life stages: egg, larva, nymph, and adult
  - This cycle can take as long as two years to complete
  - The egg, larval and nymph stages are very small, and often difficult to see with the naked eye; several would fit on the head of a pin
  - Adults are often larger, but can range from a pin head to a nickel in size, depending if they are newly attached or full of blood
- Each life stage, besides the egg, attaches itself to an animal or human, feeds on blood, then drops off to change or molt
  - Most tick-borne diseases can be carried and transmitted by all (except the egg) life stages
  - Ticks are blood feeders, requiring a bloodmeal - usually a mammal, but some feed on birds and even lizards to develop to the next life stage
  - Ticks do not jump! Nymph, larval and adult ticks “quest” or seek out animals by climbing to the top of a blade of grass and latching onto the legs of animals (or humans) that pass by
  - Tick species vary in the number of hosts they feed on within their lifetime (e.g., three-host ticks versus one-host ticks)
  - Ticks pass disease pathogens to animals and humans during blood feeding
  - Many tick-borne zoonotic diseases require long periods of attachment (24 hours) to transfer the disease-causing pathogen. So, prompt removal is essential and one of the best means of prevention

## Tick Control Measures

- Tick preventative products are available for many companion animal species
  - A number of dips, sprays, dusts, and shampoos are available
  - Permethrin should NOT be used on cats. Instead, use a product containing pyrethrin or fipronil

With any tick control product, always read and follow all label directions carefully

- Keep grass and vegetation short around the home
- Remove leaves and brush from around buildings and kennel areas to reduce the number of ticks

## Tick Removal

- Animals should be examined regularly for the presence of ticks
- Prompt and proper tick removal is essential to stop the transmission of disease
  - Some disease pathogens can be spread through tick feces or saliva during removal
  - Gloves should be worn during the removal of any tick; if gloves are not available, use a disposable towel or tissue
  - To remove an attached tick, grasp the tick where the mouthparts enter the skin with a narrow-tip tweezers, apply slow steady pressure and gently pull until the tick is removed; clean and disinfect the wound site
  - Avoid leaving any part of the tick embedded in the skin, as this can cause infection

## Personal Protection

- Avoid tick-infested areas
  - If tick infested areas cannot be avoided, wear long sleeves, long pants and tuck pant legs into socks
  - Wear light colored clothes for easier visualization
  - Use EPA approved tick repellants (e.g., one containing DEET); permethrin may be used on clothing - Perform regular tick checks on yourself, children and pets

**It is a violation of state and federal law to use a pesticide in any manner that differs from the product label. Use only according to label directions to avoid meat or milk residue hazards, environmental damage, and animal or human injury.**

## For More Information

Controlling ticks. University of Nebraska-Lincoln Extension. Available at: <http://www.ianrpubs.unl.edu/epublic/live/g1220/build/g1220.pdf>

Ticks and tick-borne diseases in Iowa. Iowa State University Extension. Available at: <http://www.extension.iastate.edu/Publications/PM2036.pdf>